

### **REMARKS**

The Office Action issued March 31, 2009, has been received and carefully considered. The preceding amendments and following remarks form a full and complete response thereto. Claim 19 is cancelled without prejudice or disclaimer to the recited subject matter. Claims 1-18 and 23-25 have been amended. Claims 26-29 are new. No new matter has been added.

### **Claim Amendments**

Claims 1-18 and 23-25 have been amended as to form. Independent claim 1 and claim 14 have been further amended to remove the recitation of self-supporting plastic foil and to recite a paper layer laminated on both sides/surfaces all over to plastic foil. Support for this amendment is found, inter alia, in paragraphs 31 and 54-57. Claim 1 is also amended to recite a paper layer weight of 50-100 g/m<sup>2</sup>. Support for this amendment is found, inter alia, at paragraph 15. Claim 14 is further amended to delete a preferred range of plastic foil thickness. Claims 24 and 25 are amended to recite a narrower range of weights. Support for these amendments may be found, inter alia, in paragraph 15. No new matter is added.

### **New Claims**

Claims 26-29 are new. Dependent claims 26 and 27 recite a range of thicknesses of 6 to 15  $\mu\text{m}$  and are supported, inter alia, by paragraph 33. Claims 26 and 27 are patentable over the cited references at least due to their dependencies on patentable claims 1 and 14.

Claims 28 and 29 are directed to methods for producing a creasable, foldable security paper for producing value documents in which at least one paper layer having a weight of 50 to 100 g/m<sup>2</sup> has a plastic foil extruded onto both surfaces where the plastic foil is equipped with a security feature and has a thickness of 1 to 20  $\mu\text{m}$ . Support for claims 28 and 29 can be found, inter alia, in paragraphs 33, 36-42, and. Claims 28 and 29 are patentable over the cited references at least because, as set forth below, the

references fail to teach or suggest a method for producing a creasable, foldable security paper in which a plastic foil is applied onto both sides of the paper layer, is equipped with a security feature, and has a thickness of 1-20  $\mu\text{m}$  and the paper layer has a weight of 50 to 100 g/m<sup>2</sup>.

### **Claim rejections under 35 U.S.C. § 112**

Claims 1-25 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite for failing to particularly point out and distinctly claim the subject matter which is regarded as the invention. In particular, the Examiner stated that claims 1 and 14 recited "self-supporting plastic foil" but did not recite what was intended by "self-supporting." Applicants have amended claims 1 and 14 to remove the recitation of the term "self-supporting."

Claims 1, 14, 24, and 25 were rejected 35 U.S.C. § 112, second paragraph, as being indefinite. The Examiner stated that recitation of a broad range and a narrower included range in the same claim does not clearly set forth the metes and bounds of the patent protection desired. Applicants have amended claims 1, 14, 24, and 25 such that broad and included narrow ranges are not recited.

The remaining claims were rejected because they "ultimately depend from and carry the indefiniteness of either claim 1 or claim 14." Applicants submit that the foregoing discussed amendments to claims 1, 14, 24, and 25 overcome the stated grounds of rejection for claims 1-18 and 20-25 (the rejection of cancelled claim 19 being moot). Therefore, Applicants respectfully request that the rejection of claims 1-18 and 20-25 be withdrawn.

### **Claim rejections under 35 U.S.C. § 102(b) or, alternatively, § 103(a)**

Claims 1, 3, 5, 8-10, and 13 were rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as allegedly being obvious over U.S. Patent 4,455,359 to Pätzold et al. (hereinafter "Pätzold"). Applicants

traverse the rejection because Pätzold fails to disclose or render obvious all elements of the claims.

Independent claim 1 from which claims 3, 5, 8-10 and 13 depend directly or through an intervening claim, recites a security paper for producing value documents, including a creasable, foldable, multilayer substrate. The substrate has at least one paper layer laminated on both sides all over to plastic foil. The plastic foil is equipped with a security feature. The plastic foil has a thickness of 1 to 20  $\mu\text{m}$ . The paper layer has a weight of 50 to 100  $\text{g/m}^2$ .

As a result of the novel configuration claimed in claim 1, a security paper is provided that has the feel and sound of paper as far as possible.

Pätzold relates to a photographic information carrier, for instance, a credit card. Pätzold discloses, in its Background, cards having a photographic paper inlet welded between two clear foils by the application of pressure and temperature round the edges. Col. 1 ll. 16-39. Pätzold teaches however, that it is considered disadvantageous when the laminating foils are welded, because they are bonded only incompletely to the surface and, thus, can be separated from the paper layer by heating or by chemical means. Col. 1 ll. 40-50. Pätzold therefore teaches to indissolubly attach the whole surface of the photographic material to the transparent foil so that the information carrier is no longer accessible without destruction thereof. Col. 1 ll. 51-60. This is achieved, according to Pätzold, by laminating the photographic material on one or both sides to the clear foils by means of a layer of adhesive. In addition, the information carrier is provided with a very specific gelatine layer that not only carries the photographic recording material (photographic silver or dye), but has furthermore very good properties for cooperating with the adhesive by which the photographic material is laminated to the clear cover foils. Col 1 l. 61-col. 2 l. 11. Lamination is then carried out using heat and pressure. Col. 5 ll. 42 et seq. As in the prior art cards, the transparent cover layers extend by 1 to 2 mm beyond the edge, col. 5 ll. 62-68, and are directly laminated with each other in this border area. Full thicknesses range from 15 to 250

$\mu\text{m}$ , preferably 50 to 200  $\mu\text{m}$ , depending on the required stiffness of the document, col. 4 ll. 61-65.

Further, Pätzold's relation to photographic information carriers and, in particular, to photographic information carriers in card form, suggests that the information carrier has a certain thickness. The thickness of the foils in Pätzold is from 15 to 250  $\mu\text{m}$ , preferably 50 to 200  $\mu\text{m}$ . In contrast, according to the present claims, the plastic foil has a thickness of only 1 to 20  $\mu\text{m}$ , preferably 6 to 15  $\mu\text{m}$ . The photographic paper used in this context is accordingly also relatively heavy. One skilled in the art would have considered that such paper must be sufficiently strong to carry the gelatine layers with the photographic recording material. In example 1, conventional photographic paper is used and the weight of the photographic paper is given with approximately 120 g/m<sup>2</sup>. As compared to this, not only do the present claims recite comparatively thin plastic foils, but also claim 1 recites that the paper layer has a weight of only 50 to 100 g/m<sup>2</sup>. This aspect of the present claims provide a security paper that has the feel and sound of paper as far as possible (see paragraph 10 of the present application). This is clearly not the case for the information carriers of Pätzold. Stiffness is a concern as can be concluded from the thickness and weight values given in Pätzold and as can further be concluded from col. 4 ll. 61 and 62 (foil thickness depends on required document stiffness). There is no suggestion whatsoever that the information carrier of Pätzold has the look and feel of paper. Instead, Pätzold rather relates to information carriers in card form. Col. 1 ll. 6-15.

Thus, Pätzold fails to disclose or render obvious each element of the claims and Applicants request that the rejection of claims 1, 3, 5, 8-10 and 13 be withdrawn and that claims 1, 3, 5, 8-10 and 13 be allowed.

**Claim rejections under 35 U.S.C. § 103(a)**

Claims 2, 4, 6, 7, 14-16, and 20-22 were rejected under 35 U.S.C. § 103(a) as being obvious over Pätzold in view of U.S. Pat. 5,868,902 to Howland and further in view of U.S. Pat. 4,462,866 to Tooth and an article entitled "Paper, Its making,

merchanting and usage" by Haylock. Applicants traverse the rejection because the additional references fail to remedy the deficiencies of Pätzold as discussed above with regard to claim 1, from which claims 2, 4, 6, 7, 14-16, and 20-22 depend directly or through intervening claims.

The excerpt of Haylock provided by the Examiner fails to make any disclosure or teaching regarding plastic.

Howland discloses forming paper in a wet state, the paper having a security feature, applying to the paper a sizing agent, and applying a coating comprising an unpigmented polyurethane. Abstract. Howland fails to teach or suggest the claimed ranges for paper weight or plastic foil thickness. In fact, Howland does not teach or suggest any range of acceptable values for a paper weight or plastic foil thickness.

Likewise, Tooth fails to teach or suggest ranges of paper weights or plastic foil thickness. Tooth discloses security papers having an elongate element partially disposed within the thickness of the paper and used for bank notes and checks. Abstract. Tooth fails to teach or suggest the claimed ranges for paper weight or plastic foil thickness. Moreover, there would have been no motivation for the person of ordinary skill in the art to have used the papers of Howland or Tooth as a support material for a photographic information carrier on which a gelatine layer carrying photographic material is to be carried as taught by Pätzold. The mere fact that such a paper layer existed in the form of security paper would not have rendered it obvious by itself to have replaced the "conventional photographic paper" as taught by Pätzold, col. 6 ll. 30-32, with such specific security paper typically used with banknotes, but not with cards such as credit cards.

Therefore, at least because the combination of references fails to disclose or suggest each element of the claims and person of ordinary skill in the art would not have combined the references, Applicants request that the rejection of claims 2, 4, 6, 7, 14-16, and 20-22 be withdrawn.

Claims 5, 11, 12 and 17-19 were rejected under 35 U.S.C. § 103(a) as being obvious over Pätzold in view of U.S. Pat. Application Pub. US 2002/0022112 to Hoeppner et al. (hereinafter "Hoeppner"). Applicants traverse the rejection because Hoeppner fails to remedy the deficiencies of Pätzold as discussed above with regard to claim 1, from which claims 5, 11, 12 and 17-18 depend directly or through intervening claims (the rejection of cancelled claim 19 being moot).

Hoeppner fails to cure these deficiencies because Hoeppner is concerned with plastic cards, not creasable, foldable security paper. Additionally, one of ordinary skill in the art would not have combined Pätzold with Hoeppner because Hoeppner is in a different field. In particular, Hoeppner is directed exclusively towards the production of cards including a plastic coating which permits subsequent personalization of the respective cards by printing, laser, embossing or the like. See claims 5-7, paras. 16, 26, 32, 38, 48, and 55. Hoeppner fails to teach or suggest any range of card or coating thickness or weight.

Moreover, even if one were to coat a piece of paper as taught by Hoeppner, one would end up with a security card, since it is definitely not possible to maintain the properties of creasability and foldability as well as the feel and sound of paper after having applied a first plastic coating to both sides of the paper layer and, after printing the same in order to apply further security features, having applied additional covering films or composite covering films on both sides of the already covered substrate. Paras. 16-20. Applicants stress that the plastic coating of Hoeppner is embossable because embossing requires material that can be raised to create a design. One of ordinary skill in the art would understand that to emboss a coating that will be subjected to further films would counteract the required properties of creasability and foldability. Therefore, Hoeppner actually teaches away from the presently claimed invention.

Therefore, Applicants respectfully request that the rejection be withdrawn, and claims 5, 11, 12 and 17-18 be allowed.

Apparently referring to claim 5, the Examiner stated "[s]ince the laminated layers

have different properties, they would obviously have different strain properties.” Office Action at 10. To the extent that the Examiner is taking Official Notice that non-specific “different properties” would result in laminated layers having different strains, Applicants traverse such Official Notice. An assertion of this nature is not amenable to “such instant and unquestionable demonstration as to defy dispute.” MPEP 2144.03. Applicants request that the Examiner provide a reference or other evidence to substantiate this bold proposition. Moreover, claim 5 recites that the plastic foils on different sides of the paper layer are under different strains. Pätzold in view of Hoepfner fails to teach or suggest that foils having different properties (much less different strains) are applied to different sides of the paper layer. Applicants request that the Examiner withdraw the rejection of claim 5 for at least these additional, independent reasons.

Apparently referring to claim 18, the Examiner stated that “[a]bsent convincing evidence of unexpected properties derived therefrom, a water-soluble adhesive would have been obvious as a functionally equivalent option.” Office Action at 10-11. To the extent that the Examiner is taking Official Notice that a water-soluble adhesive is a functionally equivalent option to something, Applicants traverse such Official Notice. An assertion of this nature is not amenable to “such instant and unquestionable demonstration as to defy dispute.” MPEP 2144.03. Applicants submit that the Examiner has failed to state a prima facie rejection of claim 18. Applicants request that the Examiner provide a reference or other evidence to substantiate this bold proposition and a rationale for combining it with the cited references or withdraw the rejection of claim 18 for at least this additional, independent reason.

Claim 23 was rejected under 35 U.S.C. § 103(a) as being obvious over Pätzold in view of Nigam. Applicants traverse the rejection of claim 23 because the references, singly and in combination, fail to disclose or render obvious all of the limitations of claim 23.

Claim 23 depends from independent claim 1 through intervening claim 7 and is patentable over Pätzold for at least for the reasons given above with regard to claim 1. Applicants submit that the rejection is improper because Nigam fails to remedy the deficiencies of Pätzold. Nigam is merely directed to sizing agents for paper intended to be printed with an ink containing a dye capable of reacting with the sizing agent. Nigam fails to disclose or suggest paper weights or plastic foil dimensions. Applicants request that the rejection be withdrawn for at least this reason.

Moreover, the rejection is improper because the Examiner failed to set forth a prima facie case that it would have been obvious to combine the teachings of Nigam and Pätzold and has improperly asserted that Applicants must prove non-obviousness. The Examiner stated that "[a]bsent convincing evidence of unexpected properties derived therefrom, it would have been obvious to one of ordinary skill in the art at the time of the invention [to] use polyamide fibers in the paper layer of Patzold et al in view of Nigam as functionally equivalent synthetic fibers." Pätzold relates to coating photographic substrates and Nigam relates to ink-printable substrates. To the extent that the Examiner is taking Official Notice that fibers used in ink-printable substrates are functionally equivalent to fibers used in substrates for photographs, Applicants traverse such Official Notice. An assertion of this nature is not amenable to "such instant and unquestionable demonstration as to defy dispute." MPEP 2144.03. Applicants request that the Examiner provide a reference or other evidence to substantiate this bold proposition or withdraw the rejection for at least this additional independent reason.

Claims 24 and 25 were rejected under 35 U.S.C. § 103(a) as obvious over Pätzold in view of Howland and further in view of Tooth and even further in view of U.S. Pat. 5,961,432 to Murakami. The references cited in addition to Pätzold fail to remedy the deficiencies of Pätzold as discussed above regarding claim 1, from which claims 24 and 25 depend directly or through an intervening claim. Applicants traverse the rejection because the additional references, taken singly or in combination, fail to disclose or suggest at least the claimed paper weights and plastic foil thicknesses. Applicants request that the rejection be withdrawn for at least this reason.



Pätzold, Howland, and Tooth are discussed above. Murakami discloses an anti-falsification paper in which a thread is exposed at window portions on the surface of the paper. There is no motivation for the skilled person to use such specific paper as disclosed by Murakami as a support material for a photographic information carrier on which a gelatine layer carrying photographic material is to be carried as taught in Pätzold. The mere fact that such security paper existed did not render it obvious to replace the "conventional photographic paper" as used by Pätzold, col. 6 ll. 30-32, for use in cards such as credit cards. Applicants request that the rejection of claims 24 and 25 be withdrawn at least because the combination of references fails to teach or suggest each claim limitation and because a person having ordinary skill in the art would not have combined the references as suggested by the Examiner.

In view of the foregoing, Applicants submit that all rejections and objections have satisfactorily been addressed. Accordingly, Applicants submit that this application is in condition for allowance and request that it be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event that this paper is not timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account No. 02-2135.

Respectfully submitted,

Date: June 30, 2009

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